EN

MR65
User manual

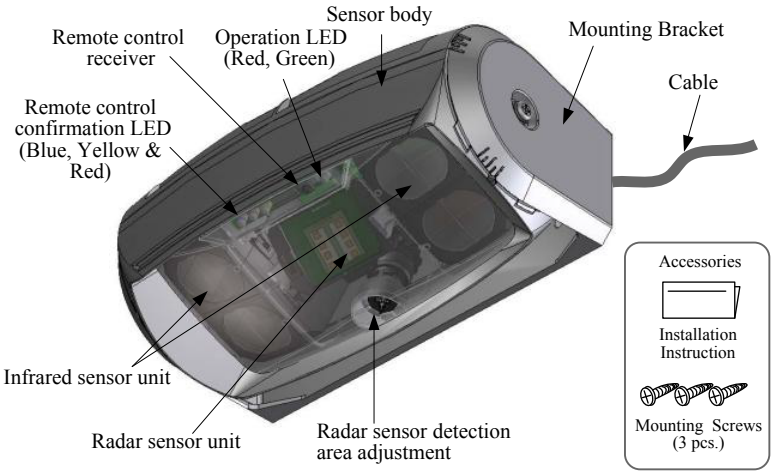
Motorline PROFESSIONAL

WARNING Disregarding this symbol may result in serious injury or death

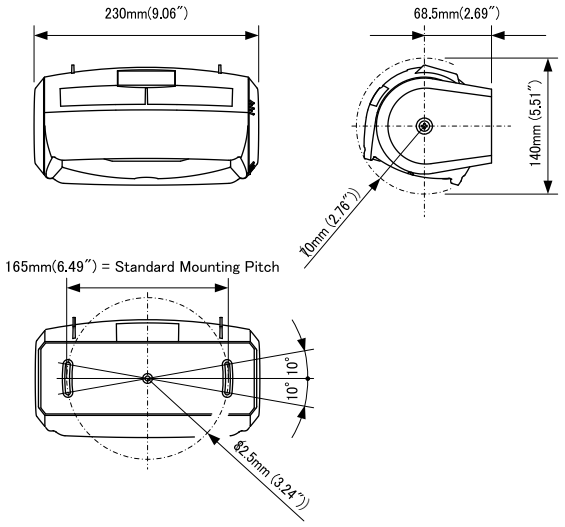
CAUTION Disregarding this symbol may result in injury or damage to equipment

Note Special attention is required when this symbol is shown

1. DESCRIPTION



2. DIMENSIONS

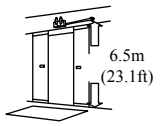


3. LED INDICATORS (Operation LED)

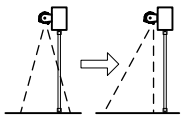
Green	Standby
Green blinking	Sensor Initializing
Red	Infrared Detecting / RADAR and Infrared Detecting
Red blinking	RADAR Detecting
Yellow	Inner detection "ROW 1" is detecting door movement
Green/Red blinking (Fast)	Internal Sensor Error

4. MOUNTING PRECAUTIONS

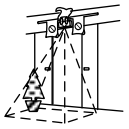
Mounting height of 6.5m (21.3ft) or lower



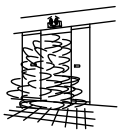
Adjust the sensor body so that the sensor does not detect the door.



Ensure there are no moving objects in the detection zone

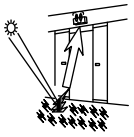


Ensure no condensation gets onto the sensor.

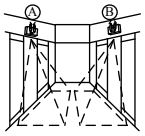


If possible ensure no accumulation of snow or water on the floor.

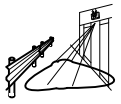
Ensure the minimum of reflected sunlight from the floor



Use different frequency settings for sensors in close proximity



The Radar part of the sensor may be negatively influenced by metal close to or in the detection field



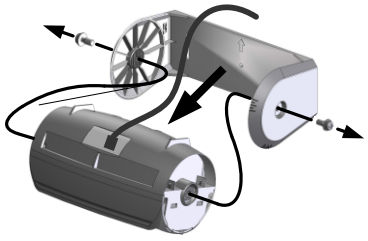
5. TECHNICAL SPECIFICATIONS

Common Specification		
Installation Height	3.5-6.5[m] (11.5-21.3 [ft])	
Supply Voltage	AC/DC 12 to 24 [V] ±10% 50/60Hz	
Power Consumption	AC12V-2.5 [VA] (Max) AC24V-3.3 [VA] (Max) DC12V-150 [mA] (Max) DC24V-80 [mA] (Max)	
Output	Output1 (IR.Output)	Opto Relay Non Pole Voltage: 48 [VDC] Max. Current : 300 [mA] Max. (Resistance load)
	Output2 (Radar Output)	Opto Relay Non Pole Voltage: 48 [VDC] Max. Current : 300 [mA] Max. (Resistance load)
Operating Temperature	-20 to +60 [Deg.C],(-4 to 140 Deg.F)	
Operating humidity	Below 80%	
IP Rate	IP65	
Weight	2.87 [lb.] (1.3 [kg])	
Color	Black	
Cable	10[m] Directly from the sensor.	
Accessories	Mounting Screw 3pcs., Installation Instruction Remote Control sold separately	
Specifications of Reflection Sensor		
Detection Method	Active Infrared Reflective	
Output Holding Time	0.5 [seconds] App.	
Response Time	0.25 [seconds] App.	
Presence Timer	30 [seconds], 1,2,5,10,20[minutes],1,2 [hours] or ∞	
Specifications of Redar Sensor		
Detection Method	Doppler method: (moving body detection)	
Transmit frequency	24.15 [GHz]	
Output Holding Time	0.5 [seconds] App.	
Response Time	0.1 [seconds] App.	
Notice: Specification may be changed without prior notice.		

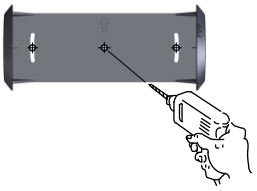
6. MOUNTING & WIRING INFORMATION

WARNING Drilling may cause electric shock.
Be careful of hidden wires inside the door engine cover.

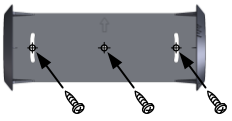
① Remove the sensor body from its mounting bracket.



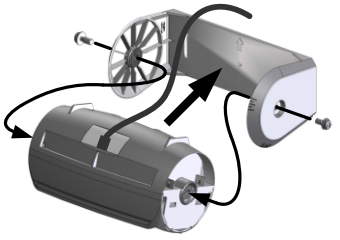
② Drill a hole to match the mounting hole in the mounting bracket. (3.5mmφ)



③ Attach the mounting bracket with the mounting screws provided.

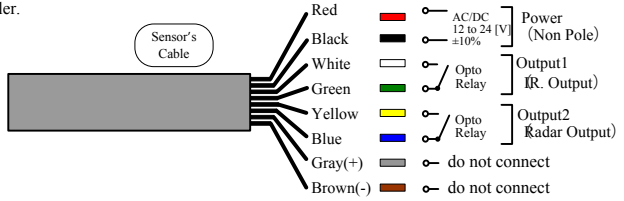


④ Attach the sensor body to its mounting bracket. Route the cable around the mounting bracket.



Recommended screw tightening torque : 5.2N・m

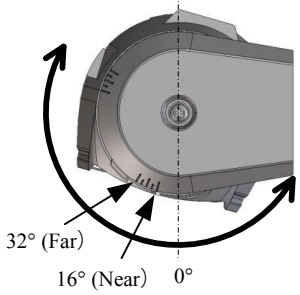
⑤ Wiring to the door controller.



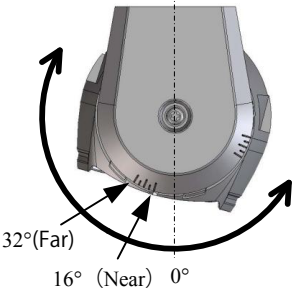
7.DETECTION AREA WIDTH AND DEPTH ADJUSTMENT

Detection Area Depth Adjustment: Infrared-IR (5 Rows)

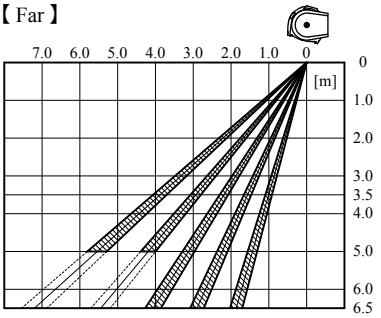
When mounted on the wall



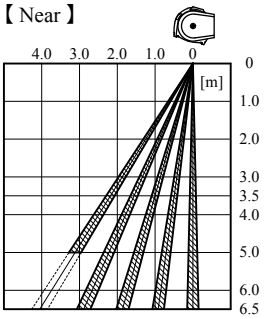
When ceiling mounted



【Far】



【Near】

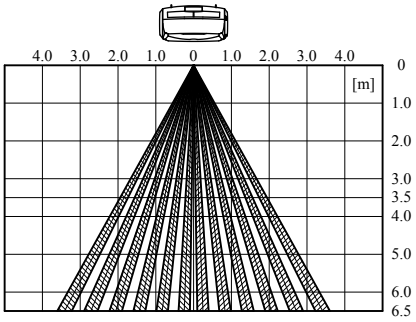


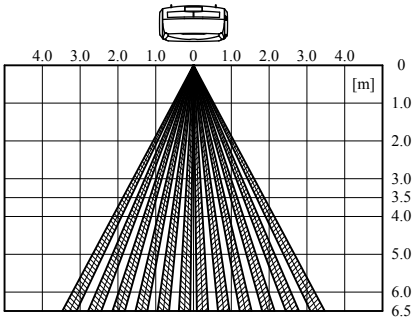
Detection Area Width : Infrared (5 Rows)

When the sensor body angle is set to 32° (Far)

When the sensor body angle is set to 16° (Near)

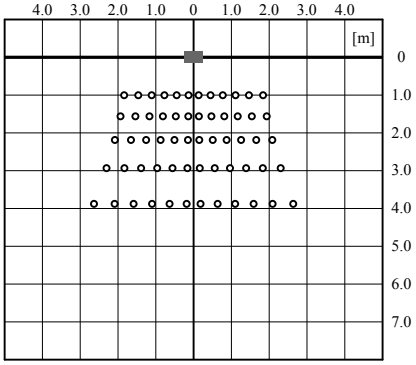
Beam positions at row 1

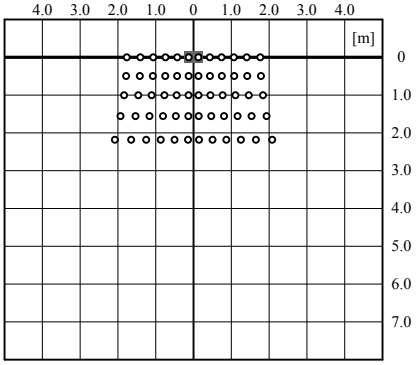




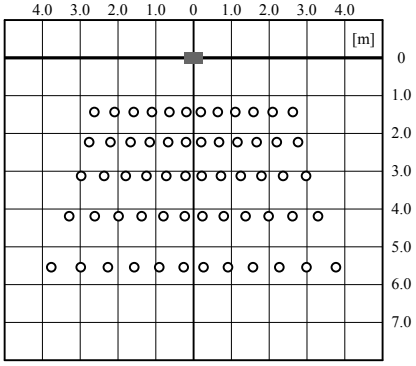
Infrared floor pattern

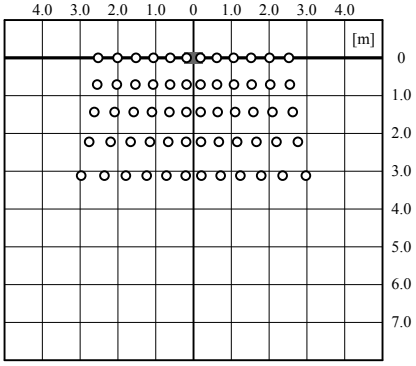
Installation Height: 3500mm





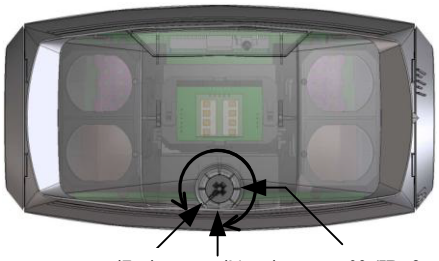
Installation Height: 5000mm





Detection Area Depth Adjustment: RADAR

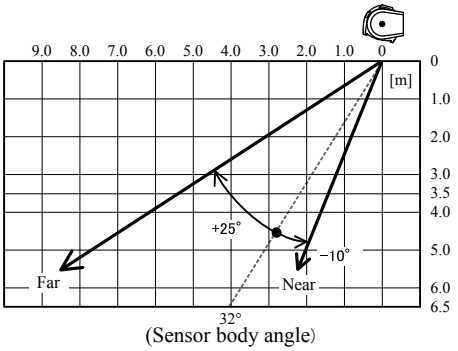
The detection area varies depending on the object size and approach speed.
The Radar is design to detect only large objects and not people.



25°(Far) -10° (Near) 0° (IR. 3 row)

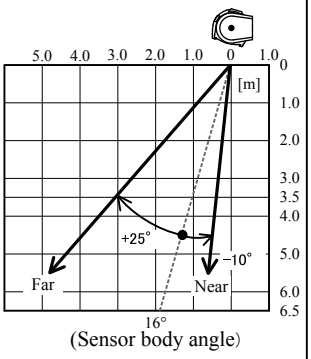
Turn left or right

When the sensor body angle is set to 32°



(Sensor body angle)

When the sensor body angle is set to 16°



(Sensor body angle)

The radar swings from the third row of infrared detection spots as its base point.

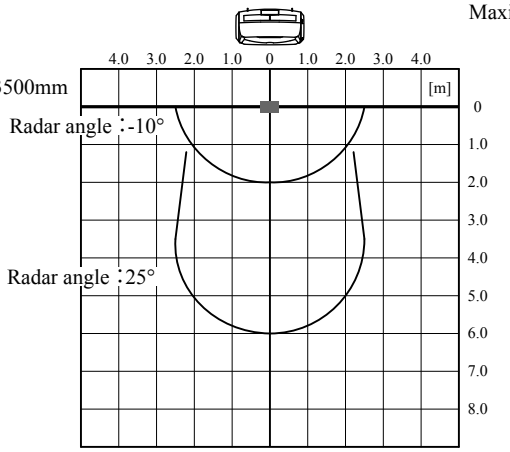
Detection Area Width : RADAR

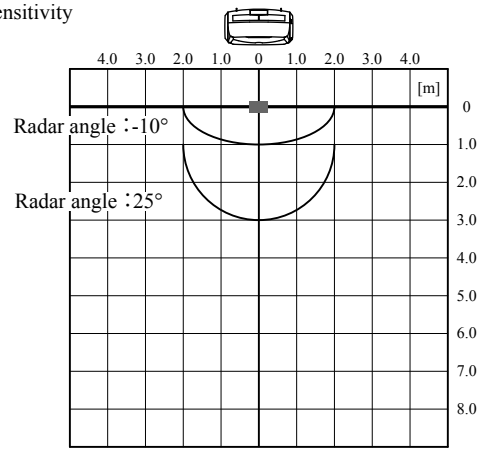
When the sensor body angle is set to 32°

When the sensor body angle is set to 16°

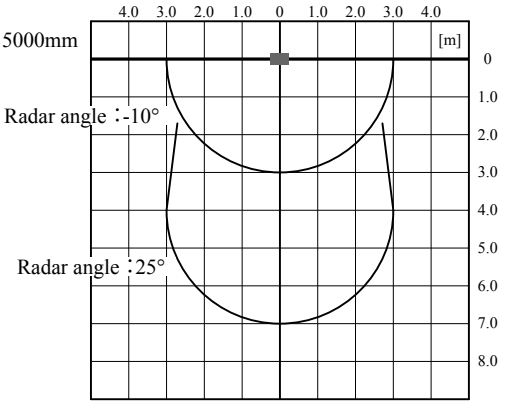
Maximum sensitivity

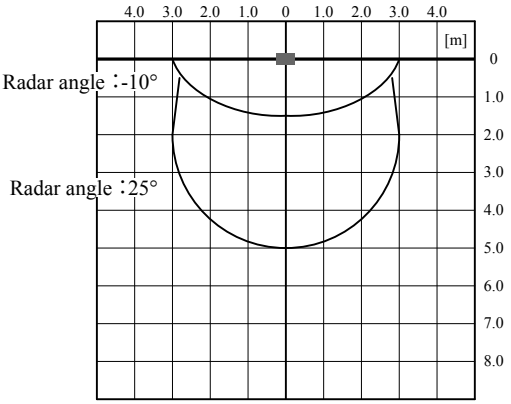
Installation Height: 3500mm





Installation Height: 5000mm





If the RADAR detects people, decrease its sensitivity setting.

CAUTION

The above illustrated detection areas represent the actual position of the infrared and radar beams. The actual detection area observed will vary depending on the sensor installation environment, objects been detected and sensor settings.

8. TROUBLESHOOTING

Problem	LED Status	Possible Cause	Solution
Door does not open when the object enters the detection area	OFF	Incorrect power supply voltage	Apply proper voltage to the sensor. (AC/DC 12-24V)
		Incorrect sensor wiring	Double check sensor wiring
Door opens and closes for no apparent reason (Ghosting)	Door Opens RED or RED Blinking Door Closes GREEN	Object moving in the detection area	Remove the moving object from detection area.
		Sensitivity too high for the installation environment	Reduce the sensor sensitivity setting
		Dust, frost or water droplet on the sensor lens	Wipe the sensor lens clean
		Detection area overlaps with that of another sensor	Ensure different frequency settings for each sensor. Adjust the detection areas so that they do not overlap.
		Detection of falling snow	Set Environment (snow) mode according to the amount of snowfall.
		Detection of flying insects	Set Insect mode to "On".
When Door opens or closes, LED YELLOW	YELLOW	Detection row "ROW 1" is detecting too close to the door.	Adjust the IR detection area away from the door.
Door opens and remains in the open position	RED	Detection area changed, while the ∞ (infinity) presence timer setting is in use	Re-power the sensor or change the presence timer settings to something other than ∞ .
		Incorrect sensor wiring	Double check sensor wiring
		Reflected IR signal saturation	Remove highly reflective objects from the detection area, or lower the IR sensitivity setting
	RED Blinking	Moving objects in the radar detection area	Remove moving objects from the detection area.
	GREEN/RED FAST FLASH	Internal sensor error	Replace the sensor

< Disclaimer > The manufacturer cannot be held responsible for below.

1. Misinterpretation of the installation instructions, miss connection, negligence, sensor modification and inappropriate installation.
2. Damage caused by inappropriate transportation.
3. Accidents or damages caused by fire, pollution, abnormal voltage, earthquake, thunderstorm, wind, floods and other acts of providence.
4. Losses of business profits, business interruptions, business information losses and other financial losses caused by using the sensor or malfunction of the sensor.
5. Amount of compensation beyond selling price in all cases.